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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,674	07/30/2003	Johannes Menzel	A 91755	6480

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Walter Ottesen
Patent Attorney
P.O. Box 4026
Gaithersburg, MD 20885-4026

EXAMINER

BURCH, MELODY M

ART UNIT	PAPER NUMBER
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3683

DATE MAILED: 08/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/629,674	Applicant(s) MENZEL ET AL.	
	Examiner Melody M. Burch	Art Unit 3683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 May 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-10, 12-16 and 20-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-10, 12-16 and 20-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 May 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the drive motor connected to the first housing part and the handle connected to the second housing part must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

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2. In addition to Replacement Sheets containing the corrected drawing figure(s), applicant is required to submit a marked-up copy of each Replacement Sheet including annotations indicating the changes made to the previous version. The marked-up copy must be clearly labeled as "Annotated Sheets" and must be presented in the amendment or remarks section that explains the change(s) to the drawings. See 37 CFR 1.121(d)(1). Failure to timely submit the proposed drawing and marked-up copy will result in the abandonment of the application.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3, 6, 7, 20, 21, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 3141660 to Clarke et al. in view of US Patent 6375171 to Zimmerman et al.

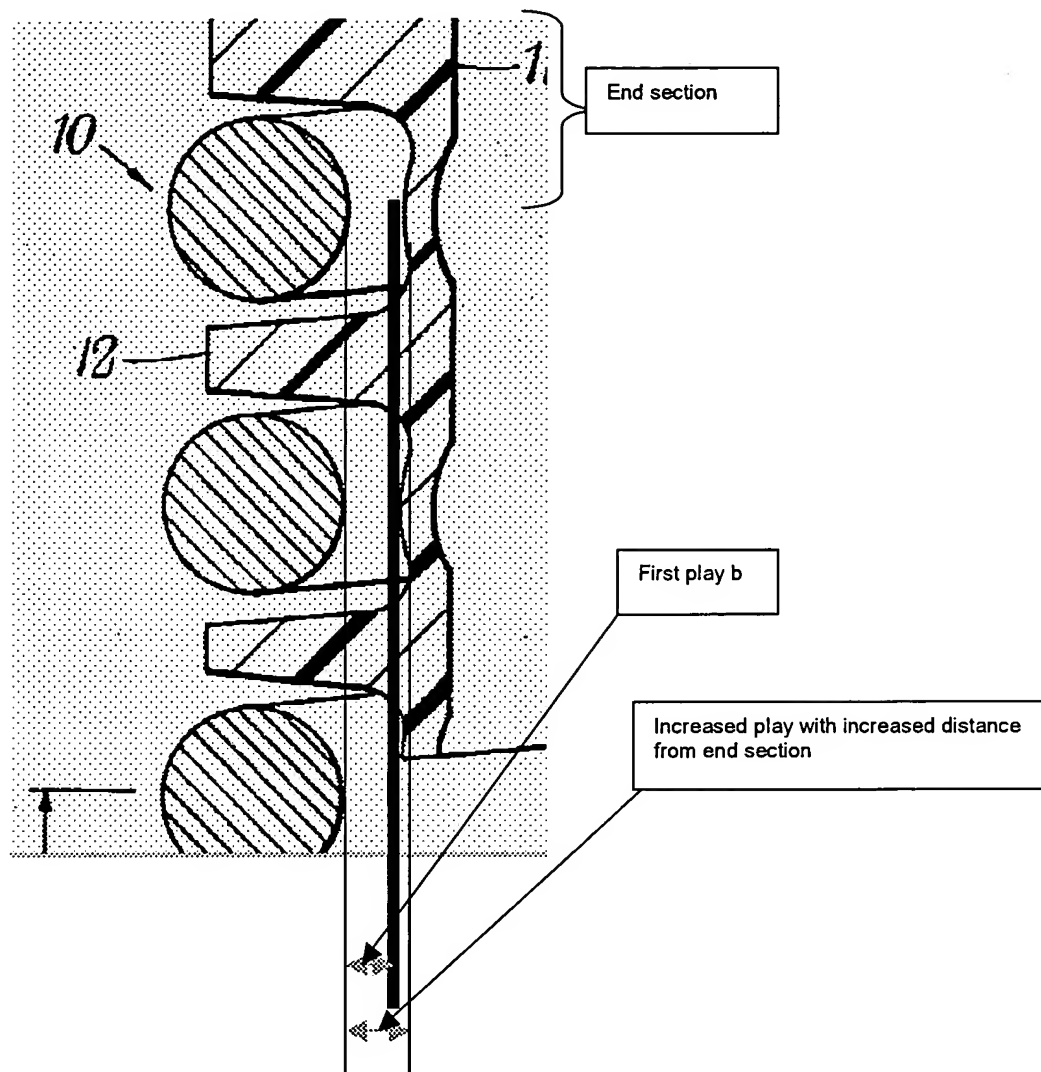
Re: claims 3, 20, 21, and 22. Clarke et al. show in the figure an antivibration element comprising: a coil spring 10 subject to deformation under load during operation of the antivibration element, the coil spring defining a longitudinal axis and having an end section, a midsection, and a transition section extending from the end section to the remainder, a guide member 12 having a helically shaped guide slot wherein turns of the coil spring are guided, the end section and the transition section being guided in the guide slot, the end section being fixed in the guide slot, the helically shaped guide slot

having a base and the transition section being guided in the guide slot with a first play to the base measured in radial direction as shown, the guide slot having first and second flanks delimiting the slot in the axial direction of the longitudinal axis, and the transition section having a second play to the first flank in the axial direction and a third play to the second flank also in the axial direction as shown with the plays becoming overcome during the deformation under load so as to permit the turns of the transition section to lie at least in part against the guide slot thereby increasing the stiffness of the coil spring.

Clarke et al. fail to show the limitation of the antivibration element being in the environment of a portable handheld work apparatus connected to a drive motor and to a handle, respectively.

Zimmermann et al. teach in figure 2 the use of an antivibration element 5 being in the environment of a portable handheld work apparatus in which one end is connected to a drive motor 4 and the other end is connected to a handle 3.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the coil spring of Clark et al. to have been incorporated into a work apparatus, as taught by Zimmermann et al., in order to provide a means of reducing vibration in a handheld work apparatus.



Re: claims 6 and 7. Clarke et al. show in the figure the limitation wherein the coil spring has first and second ends (radial ends – one radial end shown at the radially outermost section of the right top coil and the other radial end shown at the radially outermost section of the left bottom coil) twisted relative to each other by approximately a half turn.

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5. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clarke et al. in view of Zimmermann et al. and further in view of US Patent 4886250 to Lucas.

Clarke et al., as modified, describe the invention substantially as set forth above, including the coil spring having a plurality of turns, but does not disclose the specific number of turns claimed.

Lucas teaches in col. 7 lines 16-17 that the firmness of a spring is adjusted by changing the number of turns.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the number of turns of the end section and the transition section of the spring of Clarke et al., as modified, to have been greater than approximately 1 1/4 turns and in a range of approximately greater than one turn to four turns, in view of the teachings of Lucas, in order to adjust the firmness of the spring in the particular spring areas to achieve desired damping characteristics as best determined by the spring application.

Examiner also notes that it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable range involves only routine skill in the art. In re Aller, 105 USPQ 233.

Also it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

6. Claims 2, 8, 9, 12, 13, 14, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clarke et al. in view of Zimmermann et al. and further in view of US Patent 4712778 to Newman.

Re: claim 2. Clarke et al., as modified, describe the invention substantially as set forth above, but do not include the limitation wherein the end section is fixed form tight on the guide slot.

Newman teaches in figure 3a the limitation wherein the end section of an antivibration element is fixed form tight on a guide slot as shown between elements 45 and 49.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the end section of Clarke et al., as modified, to have been fixed form tight on the guide slot, as taught by Newman, in order to provide a means of more securely attaching the spring to the slot to prevent inadvertent slipping out.

Re: claims 8 and 9. Clarke et al., as modified, describe the invention substantially as set forth above, but do not show the limitation wherein of a second guide slot and second guide member.

Newman teaches in figure 3a the use of two guide members with guide slots wherein the guide members are configured as plugs.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the antivibration element of Clarke et al., as

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modified, to have included a second guide member, as taught by Newman, in order to provide a means of supporting the second end of the spring.

Re: claim 12. Clarke et al., as modified, show in the figure of Clarke et al. the spacing of the base of the guide slots to the longitudinal center axis becoming less with increasing distance from the end section from the bulge of the base down to the tapered portion of the base.

Re: claims 13 and 14. Clarke et al., as modified, teach in figure 3a of Newman the guide slots having a trapezoidally shaped cross-section.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the shape of the slots of Clarke et al., as modified, to be trapezoidally shaped, as taught by Newman, in order to provide a means of better accommodating a spring depending on the shape of the spring and the particular spring application.

Also, in *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966) the court held that the configuration of a claimed object was a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration is significant.

Re: claim 15. Examiner notes that it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable range involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

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7. Claims 8, 9, 10, 12, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clarke et al. in view of Zimmermann et al. and further in view of US Patent 1878128 to Griswold.

Re: claims 8-10 and 16. Clarke et al., as modified, describe the invention substantially as set forth above, but do not show the limitation wherein of a second guide slot and second guide member.

Griswold teaches in figure 2 the use of two guide members with guide slots wherein the guide members are configured as plugs.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the antivibration element of Clarke et al., as modified, to have included a second guide member, as taught by Griswold, in order to provide a means of supporting the second end of the spring.

Re: claim 12. Clarke et al., as modified, show in the figure of Clarke et al. the spacing of the base of the guide slots to the longitudinal center axis becoming less with increasing distance from the end section from the bulge of the base down to the tapered portion of the base.

Response to Arguments

8. Applicant's arguments filed 5/23/06 regarding the 112 2nd rejection of claim 20 are persuasive and the rejection has been withdrawn. Upon further review, Examiner notes that Clarke et al., as modified, teach a first end of the coil spring being fixed to a first housing part and a second end of the coil spring being fixed to a second housing part.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melody M. Burch whose telephone number is 571-272-7114. The examiner can normally be reached on Monday-Friday (6:30 AM-3:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James McClellan can be reached on 571-272-6786. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

mmb
August 7, 2006

Melody M. Burch
Melody Burch
Primary Examiner
8/7/06